

5 time  $T_s$ , a plurality of noise samples from the matched filter. An estimator or low-pass filter estimates the plurality of noise samples from the symbol sampler, to generate a noise estimate. A combiner subtracts the noise estimate from the symbol sample, thereby generating a comparison signal. A magnitude device  
10 determines a magnitude of the comparison signal. A comparator compares the magnitude of the comparison signal to the threshold voltage, thereby generating the erasure signal. An erasure decoder erasure decodes the input data using the erasure signals from the erasure detector.--

IN THE CLAIMS:

Claim 1 (previously presented): An improvement to a spread-spectrum receiver at a base station in a direct-sequence code-division-multiple-access (DS-CDMA) system having a plurality of spread-spectrum signals with each spread-spectrum signal in the plurality of spread-spectrum signals having a chip-sequence signal lasting a symbol time  $T_s$ , and with each chip-sequence signal different from other chip-sequence signals used by other spread-spectrum signals in the plurality of spread-spectrum signals, with the spread-spectrum receiver including despreading means for detecting a desired spread-spectrum signal in the plurality of spread-spectrum signals arriving at the spread-spectrum receiver, the improvement comprising:

a symbol sampler, coupled to said matched filter,

for sampling at a plurality of symbol times  $nT_s$ , where  $n$  is an index to each symbol time, a plurality of symbol samples;

a noise sampler, coupled to said matched filter, for sampling a plurality of noise samples at any of before, after, and a combination of before and after each symbol sample, at a plurality of chip times  $kT_c$ , but not at the plurality of symbol times  $nT_s$ ;

a low-pass filter, coupled to said noise sampler, for filtering the plurality of noise samples, to generate a noise estimate corresponding to a particular symbol sample in the plurality of symbol samples;

a combiner circuit, coupled to said low-pass filter and to said symbol sampler, for subtracting the noise estimate from the particular symbol sample, thereby generating a comparison signal;

a magnitude device, coupled to said combiner circuit, for determining a magnitude of the comparison signal; and

a comparator, coupled to said magnitude device and having a threshold voltage applied to a threshold input, for comparing the magnitude of the comparison signal to the threshold voltage, thereby generating the erasure signal; and

an erasure decoder, having an erasure input coupled to said comparator and a data input coupled to said symbol sampler, responsive to the erasure signal for erasure decoding the symbol sample.

Claims 2-16 (cancel).